

REMARKS

I. Preliminary Remarks

In paragraph 6 of the Action, the Examiner objected to claim 12 as being in improper form because a multiple dependent claim may not depend from another multiple dependent claim pursuant to 37 C.F.R. § 1.75(c). In the foregoing amendment, claim 12 has been amended to depend solely from claim 5. New claims 97 and 98 were added, which recite language identical to claim 12, but depend from claims 6 and 7, respectively. This amendment does not add new matter to the application.

In the first Office Action, (paper no. 15) mailed December 17, 2002, the Examiner objected to the priority claim on the first page of the specification. The Applicants submit that the priority claim is now correct in view of the amendment mailed May 19, 2003. The Applicants request that the Examiner expressly withdraw the objection to the priority claim.

New claim 99 is directed to nucleic acid molecules of the present invention comprising nucleotides of SEQ ID NO: 1. This claim is supported throughout the specification and does not add new matter. The coding region of SEQ ID NO: 1 spans nucleotides 50-1555 and encodes amino acids 1-502 of SEQ ID NO: 2, as defined in the sequence listing. Thus, elements (a) and (d) of claim 99 are supported in the application as filed. The extracellular domain of SEQ ID NO: 2 spans amino acids 14-292 of that sequence (see page 17, lines 28-30) and is encoded by nucleotides 89-925 of SEQ ID NO: 1. The predicted signal sequence of SEQ ID NO: 2 spans residues 1-14, which is encoded by nucleotides 50-89 of SEQ ID NO: 1 (see page 17, lines 28-29). The Applicants contemplated soluble polypeptides that lack amino acids 293-313 (*i.e.*, polypeptides encoded by nucleotides 926-988 of SEQ ID NO: 1), as evidenced by the disclosure at page 23, lines 19-21. Thus, elements (b) and (e) of claim 99 are supported in the specification. Polypeptides that lack a signal or leader sequence and/or carboxy terminus are contemplated at page 22, line 30, through page 23, line 4. Therefore, elements (c) and (f) of claim 99 are supported in the specification.

New claim 100 is directed to nucleic acid molecules of the present invention comprising nucleotides of SEQ ID NO: 4. This claim is supported throughout the specification and does not add new matter. The coding region of SEQ ID NO: 4 spans nucleotides 50-1729 and encodes amino acids 1-560 of SEQ ID NO: 5, as defined in the sequence listing. Thus, elements (a) and (d) of claim 100 are supported in the application as filed. The extracellular domain of SEQ ID NO: 5 spans residues 14-350 (see page 17, lines 28-30) and is encoded by nucleotides 89-1099 of SEQ ID NO: 4. The predicted signal sequence of SEQ ID NO: 5 spans residues 1-14, which is encoded by nucleotides 50-89 of SEQ ID NO: 4 (see page 17, lines 28-29). The Applicants contemplate soluble polypeptides that lack amino acids 351-371 of SEQ ID NO: 5 (encoded by nucleotides 1100-1162 of SEQ ID NO: 4) at page 23, lines 19-21. Thus, elements (b) and (e) of claim 100 are supported in the specification. Polypeptides that lack a signal or leader sequence and/or carboxy terminus are contemplated at page 22, line 30, through page 23, line 4. Therefore, elements (c) and (f) of claim 100 are supported in the specification.

New claim 101 is directed to nucleic acid molecules of the present invention comprising nucleotides of SEQ ID NO: 6. This claim is supported throughout the specification and does not add new matter. A coding region spans nucleotides 273-1427 of SEQ ID NO: 6 and encodes amino acids 1-385 of SEQ ID NO: 7, as defined in the sequence listing. Thus, elements (a) and (c) of claim 101 are supported in the application as filed. The transmembrane domain of SEQ ID NO: 7 spans residues 176-196 of (see page 17, lines 24-27); therefore, the extracellular domain spans residues 1-175 and is encoded by nucleotides 273-797 of SEQ ID NO: 6. The Applicants contemplate soluble polypeptide fragments that lack a transmembrane domain at page 23, lines 15-18. Polypeptides that lack a signal or leader sequence and/or carboxy terminus are contemplated at page 22, line 30, through page 23, line 4. Therefore, elements (b) and (d) of claim 101 are supported in the specification.

As stated in the previous response to the office action (mailed May 19, 2003), polypeptides that bind an IL-17 molecule are supported at page 23, lines 22-25. In addition, support for the recitation "nucleic acids that are 90% identical" can be found at specification page 36, line 26 through page 37, line 6. Thus, the new claims do not add new matter to the specification.

New claims 102-104 are directed to nucleic acid molecules encoding the extracellular domain of an amino acid sequence encoded by the cDNA clone contained in ATCC deposit nos. PTA-3176, PTA-3177 and PTA-3175. The ATCC deposit numbers are referred to in the specification at page 8, lines 25-32, and correspond to SEQ ID NOS: 1, 4 and 6. New claims 102-104 do not add new matter to the application.

II. Double Patenting

In paragraph 7 of the Action, the Examiner provisionally rejected claims 1-3, 14, and 59-61 under 35 U.S.C. § 101 as claiming the same invention as that of claims 1-3, 10, 11, 47-49, 59 and 60 of co-pending U.S. Patent Application No. 09/723,232. In addition, the Examiner rejected claims 5-12 and 90-96 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 5-8 and 10 of copending U.S. Patent Application No. 09/723,232. The '232 application is no longer a pending application and the Applicants have received a Notice of Abandonment. Therefore, the Applicants respectfully request that the provisional rejection be withdrawn.

III. The Rejections Under 35 U.S.C. §§ 102 (a) and (e) Should be Withdrawn

The Examiner maintained the rejection of claims 4-6, 10-14, and 59-61 under 35 U.S.C. §102 (a) and (e), and applied these rejections to claims 93-95. The Examiner maintains that these claims are anticipated under 35 U.S.C. § 102(a) by Shi *et al.*, International Patent Application Publication Number WO 99/14240. Further, these claims are also anticipated under 35 U.S.C. § 102(e) by Shaughnassy *et al.*, U.S. Patent Application Publication Number 2002/0102639. In order to expedite prosecution, the Applicants have canceled claims 93-95. Therefore, the rejection under 35 U.S.C. § 102 has been rendered moot and the Applicants respectfully request that the rejection be withdrawn.

The Applicants further submit that none of new claims 99-104 define subject matter in terms of hybridization conditions. For that reason, a rejection of any one of one of claims 99-104 under 35 U.S.C. §§ 102(a) or 102(e) on analogous grounds would be improper.

CONCLUSION

This amendment is a filed with a Request for Continued Examination and should be considered the required submission under 37 C.F.R. § 1.114. Also enclosed is the fee due under 37 C.F.R. § 1.17(e). Thus, the Applicants respectfully request entry of the foregoing amendment. The Applicants believe claims 4-12, 14, 59-61, 74-75, 91-92 and 97-104 are in condition for allowance and request notification of the same. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejections of the claims and to pass this application to issue.

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Respectfully submitted,

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